Traditional Skin Preparation Methods

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ABSTRACT

I am an Alaskan Native artist who is trying to learn more about my culture and to pass the information on to others before it is lost. Alaska Native cultures have been working with animal skins for thousands of years. Very few people today possess the knowledge to work these materials. I am interested in the use of the material for home dwellings and clothing. I am researching different ways that animal skins are turned into leather, specifically moose and salmon skins. I conducted interviews with local elders. I investigated the contrasting chemical material process that modern industry uses to produce tanned skins. The research has culminated in an installation made out of moose hide and wood in the Regents Great Hall April 23-27, 2012. The space will provide the viewer with a life sized environment simulating a traditional skin dwelling. I took a traditional preparation method used for salmon skins and transformed them into pieces of contemporary native art.

INTRODUCTION

Traditional brain tanned hide is a unique way of producing a durable material that is far superior to commercially produced leather. It can be washed and remains soft and pliable, unlike commercially prepared leathers. In sharp contrast to commercial methods, the traditional process uses natural materials from the animal so there is little impact on the environment.

Many people view animal hides as garbage and every year thousands of hides are left in the field. Through thorough documentation and education I would like to raise awareness to the uses of animal skin in modern daily life applications. There are many different styles of publications about tanning hides. Most are produced from a western perspective and are not thorough enough to follow without instruction from an additional source or combining several sources together.

In my preliminary research I found that most publications are thirty to seventy years old. There are several publications that are more recently produced as people have realized the need for this information to be preserved. As a member of the teaching staff for native cultural art camp this past summer, conversing with family, friends, and speaking with many other tribal members I discovered that there is a high interest in processing skins in the traditional native way. This project is helping to make the information more readily available and provides a link for people to the traditional ways of the past that can now be part of the future.

REFERENCES

The Ethnography of the Tanaina , Osgood, Cornelius, 1905

Home Manufacture of Furs and Skins, Farnham, Albert Burton, 1870

Practical Leather Technology, Thorstensen, Thomas C., 1919

Alaska Eskimo Footwear, Jill Oakes and Rick Riewe 1952

The Bark Canoes and Skin Boats of North America, Adney, Edwin Tappan, 1868-1950

Dùtsų̀m edhó tsę̀tsi yū dän kı́ How to Tan Hides in the Native Way, Gertie Tom

METHODS AND RESULTS

Elder Helen

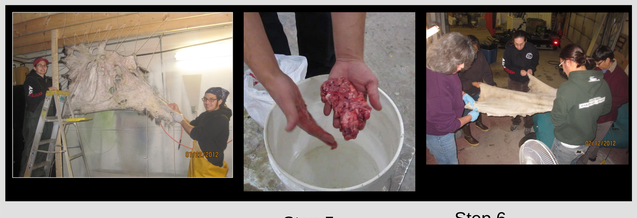
One of the focal points of my research was interviewing an Elder from Lime Village. Helen was raised by her grandparents who taught her traditional ways of living. I recorded hours of audio and video of her telling stories and explaining historic traditional processes. She showed me how tan moose hide, prepare salmon skin, stitch seams, twist sinew, get the bladder and heart sack out of a moose to turn into bags, work with moose hooves, make moose ear boots, and gut a moose. I could not have done this project without her generous help.

Traditional Baby Walking Boots
Helen Dick and Joel Isaak
Moose Ears, Brain Tanned Moose Hide, Alder Dyed Deer Skin, Land Otter Fur

Step 1
I removed the hair by rotting the hide, scraping, and soaking in wood ash water.

Step 2
The excess muscle and fat must be scraped off and the hide washed and clean. It stretch if it scraped well.

Step 3
The water needs to be wrung out before drying.



Step 4
A stout frame is constructed small holes are cut along the border of the hide and it is stretched.

Step 5
Sour the brains, mash with warm water and let soak for a day to 3 days

Step 6
As the hide is drying stretch, and soften until completely dry. The final product should be soft and pliable.

Tanning hides and skins requires many hours of manual labor to produce a quality product. The first step is to acquire a hide or skin. I acquired several moose hides through a local hunters and from road kills. I gathered the salmon skins from the fish my family caught this past summer, as well as from a local smoke house. Skins and hides have basic layering comprised of scales or hair, dermis, epidermis, and fatty tissue. The epidermis layer of the hide is preserved as a leather product. This skin layer is sandwiched between hair, dermis, and fat layers that must be removed in order to have a well preserved hide or skin. Both moose hides and salmon skins can be smoked after tanning resulting in different end products.

Smoking a tanned moose infuses color, smell, and most importantly waterproofing. This is done by digging a hole and making a cool fire out of rotten wood. The hide is sewn together to form a cone and placed over a tepee style frame over the opening of the hole. The hide is smoked until the hide has completely darkened.

Salmon skin is naturally waterproof making it an ideal material for objects like rain coats, hip boots, and water bags, the older version of a five gallon bucket. Salmon skin was also used to reinforce the elbow and armpit areas on gut parkas. The skins must first be scaled, although some species require minimal or no scaling. The most important step is to insure the tissues are removed completely, this helps to reduce the odor of the skins. Historically, salmon skins were tanned using aged urine from young boys or old women, or alder bark, or simply scraped, washed and dried. I used alder bark and the modern methods of dish soap, ammonia, and Fells Naphtha Soap. If freeze dried outside in the winter they become softer. Skins can also be smoked adding color but it weakens the material. I found that smoking increased translucency.

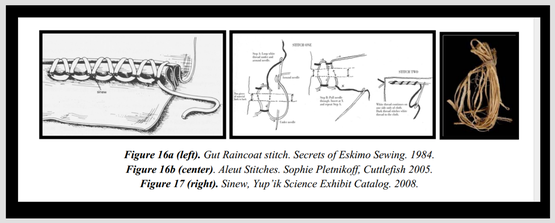


Figure 16a (left). *Gut Raincoat stitch. Secrets of Eskimo Sewing. 1984.*
Figure 16b (center). *Aleut Stitches. Sophie Pletnikoff, Cuttlefish 2005.*
Figure 17 (right). *Sinew, Yup'ik Science Exhibit Catalog. 2008.*

There are several different stitches used to sew the water proof seams. The commonality is all the seams have a reinforcing thickness added. Also it is important to use natural materials like sinew or grass as thread. Skins and sinew swell when they are wet, and this swelling helps to tighten up the seams. For my boots I cut thread out of salmon skin and used that for sewing. After speaking with Elder Helen I discovered the most important waterproofing step is heavily oiling the skins, especially the seams. Dog feces will cause the protein structures in the skins to break down, so care must be taken to avoid walking in dog yards when wearing Salmon Skin Boots.

One of the objectives for the project was to pass on the information I am gathering. This photo is of my nephew and me. He had fun watching my cousin and me work on the salmon skin and moose hide. He loves drums and enjoys the sound of tapping the dried moose hide.

CONCLUSIONS

Working with hides and skins is a very labor, time, and smell intensive process that is based on the seasons. Animal skins get thicker in the fall and with age. These thicker parts work well for soles of boots while the thinner sections of hide from the spring time make lighter weight clothing items. I found salmon skin to be extremely durable and strong. I used the largest leather sewing needles I could find to make my t'uqa' boots, and broke many needles because the salmon skin thread was so strong. Comparing strength of skin, I found salmon skins from fish that have begun to spawn to be weaker than those from the ocean. I found that fish pulled from the ocean keep more of their scales compared to those that have been in the fresh water.

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Historic Salmon skin boots from Fairbanks Museum of the North

My T'uqa' Boots (salmon)